THE EFFECT OF APPLYING CONTEXTUAL LEARNING TO SCIENTIFIC ATTITUDE ON ECOSYSTEM MATERIAL

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ABSTRACT

Contextual teaching and learning (CTL) is a conception that helps the teacher link the subject content to real-world situations and motivate students to make connections between knowledge and application in their lives. This study aims to describe the effect of applying contextual learning model to the scientific attitude of junior high school students on ecosystem material. This research is quasi experiment and uses the Matching Only Posttest-Only Control Group Design. The implementation of this study include of 33 students as experimental class and 32 students as control class in one of junior high school at East OKU. The research instrument used in in the form of rubric assessment, questionnaire, and observation sheet. Data was analyzed by using Microsoft Excel and SPSS program 16. The statically result showed that contextual learning model had an effect on improving students 'scientific attitude so that they could reach the minimum criteria. This is because the student can learn the lesson material presented through the context of their lives, and find meaning during the learning process, so that learning will become more meaningful and fun with the ecosystem material. This learning model can improve students' scientific attitude through the syntax contained in it.

Keywords: *CTL learning model, scientific attitude*

INTRODUCTION

The development of science and technology in various areas of life in the community, therefore required a way of learning that can prepare learners to be able to think logically, critically, and creatively then can argue correctly. Participants students who love science field of study categorized bit because it is difficult, limited the ability of learners, or because they are not interested in becoming scientists ortechnologists.

Nevertheless, students still hope that science learning in schools can be presented in an interesting, efficient, and effective manner . The process of science learning should consider the characteristics of science as a process and as a product. The science is as *integrative science* or integrated has been given in elementary and junior high school as integrated science subjects (Wisudawati and Sulistyowati, 2014) .One of the subject matter of science in school is ecosystem material. If related to the ecosystem then it is a complex subject that can not be separated from all the creatures that exist in the earth, both abiotic factors (soil, climate, water, temperature, light, wind) and biotic (producers, consumers, decomposers), ecosystem is a collection organisms and the environment in a spatial unit (Soeprobowati, 2011 and Irwan, 2012) . The balance of ecosystems needs to be guarded and controlled by humans as kholifahs on earth, because the earth is created in a balanced or ideal condition. Ecosystem material is a matter that must be observed directly in the real environment to observe the components of living and non-living things, the balance that occurs in the ecosystem and the example of the ecosystem itself, the natural environment is a source of learning in the form of places or nature that can provide direct information to children. Nature provides many things children can learn so that children can learn directly about plants, animals, soil, rocks, temperatures, air, rivers, mountains, water, and etc (Khanifah, 2011) .

Science learning is closely related to the learning process related to the environment as well as the daily life of the students especially on the ecosystem material. Therefore, a learning approach is needed which in the learning process links material with real life. One of the learning approaches that can be associating with the material of the ecosystem is pembelaj aran with contextual model One of the components of contextual

learning is *inquiry* that begins from the observation of the phenomenon continued with meaningful activities to produce findings that obtained by the students. The knowledge acquired by the students is not the result of remembering a set of facts but the results find themselves from the facts encountered (Trianto, 2009).

RESEARCH METHOD

The method used there was a quasi-experimental de ngan methods research design the matching only posttest-only control group design. Subjects in this study were 65 students, 33 students as experimental class and 32 students as control group in one of islamic junior high school in Belitang, OKU Timur. This contextual learning model is divided into several steps. The first step is constructivism that aims to develop the idea that children will learn more meaningfully by working alone, finding their own and constructing their own new knowledge and skills. In the second step to carry out as far as possible inquiry activities, the goal is that the knowledge and skills acquired students are expected not the result meningat a set of facts remain the result of finding their own. Frame stage of inquiry is assisted by using Student Worksheet (LKS) which had been created by teachers, the cycle of inquiry is made up of five cycles,observation (Observation), ask (Questioning), filed allegations (Hyphotesis), collect data (Data gathering), and conclusion (Conclussion) .

In the third step, students are interested in asking questions, which aims to explore information, both administrative and academic, check students 'understanding, generate responses to students, know the extent of student curiosity, find out what students already know, focus students' attention on something the teacher wants, raises more questions from the students, and refreshes the student's discovery. In step4, it creates a learning community (learning with groups), which aims to provide the information needed by a friend and also asks for the necessary information from his/her study partner. In the fifth stagepresents the model as an example of learning. In the next stage do reflection at the end of the meeting and make an assessment to find out how far the learning objectives are achieved . The research instrument used is in the form of assessment rubric, scientific attitude questionnaire and observation sheet as supporting the questionnaire. Data were analyzed using Microsoft Excel and SPSS 16 programs.

RESULT AND DISCUSION

Results pe nelitian not only based on the average score of scientific attitude but also with the description illustrated mastery of each indicator. The description of the mastery of each indicator is presented in Table 1.

Table 1. The Achievement of Student's Scientific Attitude per Indicator

Indicator	Experiment		Control	
	Percentage	Category	Persentage	Category
Curiousity	74,62	High	57,81	Medium
Respect act	61,36	High	45,31	Medium
Critical thinking	68,56	High	59,37	Medium
Preseverance	68,93	High	53,12	Medium
Creativity	79,54	High	53,12	Medium
Open minded	75	High	55,85	Medium
Social	72,47	High	52,08	Medium
Total	71,49 %	High	54,86%	Medium

Table 1 shows the average value of achievement of scientific attitude dimension of experiment class students reaching percentage of 71,49% with high category. K elas control reaches the percentage of 54.86% in the medium category. K ate gori students' scientific attitudes are presented in Table 2.

Table 2. The Students' Attitude Category

Range (%)	Note
80,1 % - 100 %	Very High
60,1 % - 80 %	High
40,1 % - 60 %	Medium

20,1 % - 40 %	Low
0,0% - 20 %	Very Low

The following is shown in Figure 1 which shows each indicator of each class, that is an experimental class using contextual learning model and control class using lecture and discussion methods.

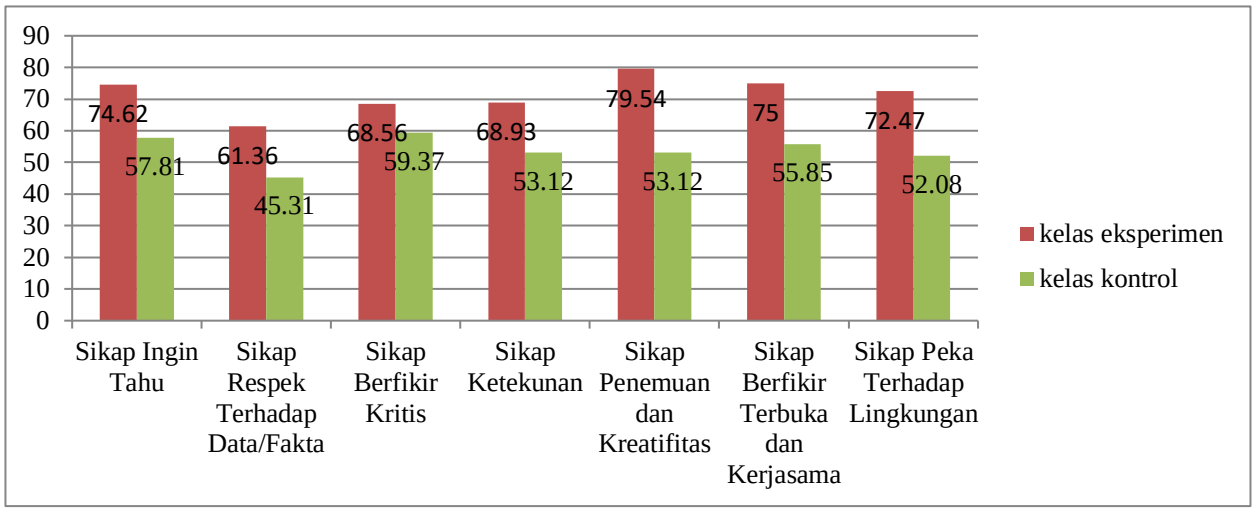

Figure 1. The Students' Scientific Attitude at Experiment Class and Control Class

Increasing scientific attitude of students b erdasarkan Figure 1 shows a significant difference in the scientific attitude graders experiment with applying the model of contextual learning and classroom control by applying conventional study on ecosystems material. This is because the contextual learning model can encourage students to be active during the learning process. H al this is because in learning using contextual learning model that emphasized is process. Learning centered learning encourages students to be more active and to find their own answers to the problems faced either through percob aan or recording information. It can link material concepts with everyday life so that the learning process will be more meaningful. This is supported by the observation sheet, the average score of students' scientific attitude observation sheets. This is presented in Table 3.

Tabel 3. Students' Achievement Observation of Students' Scientific Attitude

Indicator	Experiment		Control	
	Persentage	Category	Persentage	Category
Curiousity	79,6 %	High	29,25 %	Low
Respect act	88,6 %	Very High	25 %	Low
Critical thinking	34,8 %	Low	25 %	Low
Preseverance	94,3 %	Very High	28,12 %	Low
Creativity	76,85 %	High	25 %	Low
Open minded	79,5 %	High	25 %	Low
Social	78,55 %	High	25 %	Low
Total	76,02 %	High	26,05 %	Low

The result of percentage of observation grade value of scientific attitude of experimental class students applied contextual learning model 76.02%> 26.05% control class. Influence of contextual learning model by using statistical analysis of independent test of sample t test when seen from t value obtained result $t_{arithmetic}$ of 7,414> 1,998 for t_{table} . When viewed from score *sig. (2-tailed)* its result to 0,000 <0,05). These results confirm that the contextual learning model influences the students' scientific attitude. The influence of contextual learning model can be seen from the increasing of students' scientific attitude.

CONCLUSION

Based on the above explanation, it can be concluded that the improvement of students' scientific attitude is caused by the application of contextual learning model supported by the ability of teaching teachers

(pedagogic). The Application of contextual learning model, students can understand the material ecosystem through real discovery in the environment. Contextual learning models can encourage students to be active during the learning process. It's because in learning using contextual learning model that emphasized process. Learning centered that encourages students to be more active and to find their own answers to the problems faced either by experiment or recording information. It links the concepts of matter by everyday life so that the learning process will be more meaningful.

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